

### **Amendments to the Claims**

This listing of claims will replace the originally filed claims in the application.

#### **Listing of Claims:**

Claims 1 – 6 (cancelled)

Claim 7 (new):           A gas compressor (1, 11) having n stages (C1, C2, C3, C4, C5, CA1, CA2, CA3) connected in series, where n is equal to at least 3, each stage being followed by a cooler (R1, R2, R3, R4, R5, RA1, RA2, RA3) characterized in that at least two coolers have different pressure drops for the compressed gas, the cooler having the lower pressure drop being upstream of that having the higher pressure drop.

Claim 8 (new):           The compressor of claim 7, in which the cooler (R5, RA3) of the final stage of the compressor has a higher pressure drop than that of the first stage.

Claim 9 (new):           The compressor of claim 8, having at least four stages, in which the final stages of the compressor have a higher pressure drop than the first stages.

Claim 10 (new):           The compressor of claim 7, in which at least two coolers have pressure drops differing by at least 30%, or at least 50% or even at least 100%, the cooler having the lower pressure drop being upstream of that having the higher pressure drop.

Claim 11 (new):           The compressor of claim 10, in which at least two coolers have pressure drops different by at least 100%, the cooler having the lower pressure drop being upstream of that having the higher pressure drop.

Claim 12 (new):           A unit for separating a gas mixture, which includes at least one compressor (1, 11) of claim 7 and means for sending a gas (3, 9) coming from and/or intended for the unit to this compressor.